

REMARKS/ARGUMENTS

In view of both the amendments presented above and the following discussion, the Applicants believe that all of these claims are now in allowable form. In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application fail to comply with 35 USC § 112 first paragraph, or are indefinite under 35 USC § 112 second paragraph, non-statutory under 35 USC § 101, anticipated under the provisions of 35 USC § 102 (e) or obvious under the provisions of 35 USC § 103 (a). Thus, the Applicants believe that all of these claims are now in allowable form.

If, however, the Examiner believes that there are any unresolved issues resulting in adverse final action in any of the claims now pending in the application, Applicants respectfully request that the Examiner telephone Ms. Janet M. Skafar, Esq. at message telephone number (650) 988-0655 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Status of Claims

Claims 1-13, 24-27, 29-32, 39-45, 48, and 50 are pending in this application. Claims 14-23, 28, 33-38, 46, 47, 49 and 51 are canceled. Claims 52-58 are new.

The Objection to Claim 45

In response to the Examiner's objection, Claim 45 is amended to change the dependency from Claim 34 to Claim 39. Applicants thank the Examiner for pointing out this error.

The Rejection of Claims 1-13, 24-27, 29-32, 39-45, 48 and 50 Under 35 USC § 112, 1st Paragraph

Claims 1-13, 24-27, 29-32, 39-45, 48 and 50 are rejected under 35 USC § 112, first paragraph, as failing to comply with the enablement requirement.

Claims 2-13, 25-27, 29-32, 40-45 are amended to recite "computer system" in the preamble to more particularly point out the invention.

The rejection asserts that it is unclear as to what are the actual components of the system. Per MPEP section 2164, the enablement requirement **refers** to the requirement of 35 U.S.C. 112, first paragraph that the specification describe how to make and how to use the invention. **The invention that one skilled in the art must be enabled to make and use is that defined by the claim(s)** of the particular application. Applicants respectfully maintain that the Claims are enabled.

None of the Claims uses the term "software system" and none of the Claims recite "four modules". Claim 1 is directed to a computer system to virtually organize content of a plurality of disparate content repositories, content organizing structures of the plurality of disparate content repositories, work items of a plurality of disparate workflow systems, and work organizing structures of the plurality of disparate workflow systems. In Claim 1, the computer system comprises a processing unit and a memory; and the memory comprises a virtual repository and an application programming interface (API). The API is to access the virtual repository. In Claim 1, the first, second, third, fourth, fifth, sixth, seventh and eighth nodes of the virtual repository are "linking to" work items, work organizing structures, content, and content organizing structures, and each at least one virtual folder is another node. Fig. 1 and page 7, lines 1-8 provide support for Claim 1.

The rejection indicates that the specification gives examples of what the API does, but asserts that the specification never clearly defines the API. As to Claim 1, Claim 1 recites: an application programming interface (API), executable by said processing unit, to interface with a software application to provide access to the virtual repository, wherein said at least one virtual folder is accessed via said API. Applicants respectfully maintain that the API of claim 1 is defined by the specification. Support for the recitation of the API can be found in the specification on page 4, lines 15-17, and page 5, line 21 to page 6, line 4 of Applicants' specification. Furthermore, APIs are well-known to those skilled in the art. For example, the published U.S. patent application with Publication No. US 2002/0152210 A1 to Johnson et al, and cited by the Examiner with respect to Claim 10, discloses an application programming interface (API) in the context of providing access to multiple disparate content repositories.

Applicants also respectfully maintain that the API of Claim 24 is enabled. Claim 24 recites: a module comprising an application program interface (API), executable by the processing unit, to interface with a software application; a plurality of nodes, created using the first software, wherein the API provides an interface to the plurality of nodes. Support for this API can be found on page 4 lines 4-11, page 5 line 21 to page 6 line 4, and page 12 lines 8-12 of Applicants' specification.

Applicants also respectfully maintain that the API of Claim 39 is enabled. Claim 39 recites: a module application program interface (API), executable by the processing unit, to interface with a software application; a plurality of subscriptions to a plurality of subscribed-to-items, respectively, wherein the module API interfaces to the software application to create the plurality of subscriptions. Support for this API can be found on page 4, lines 12-22, page 5 line 21 to page 6 line 4, and page 17 lines 9-11.

The rejection asserts that there are inconsistencies in the nodes exact definition. The rejection asserts that on page 7 of applicants' specification, "each node

can be one of many types including a link to a folder in a content repository, link to content, ...". The rejection then asserts that on page 12 of Applicants' specification, "A node is generally either an entity defined by unique subject identifier or is a piece of external information defined by a unique subject address that can be resolved with a locator." Applicants respectfully maintain that these statements are not inconsistent.

On page 12 of Applicants specification, a node is **generally** either an entity defined by a unique subject identifier or is a piece of external information defined by a unique subject address that can be resolved with a locator. The sentence uses the term "**generally**". Therefore, the specification may define other types of nodes and not be inconsistent.

In addition, Claims 1, 7 and 24 specifically recite the kind of node being claimed. Therefore Applicants respectfully maintain that the description of nodes is not inconsistent.

The Examiner asks how all of these parts or "components" of the system function together. The Examiner asserts that the specification merely discloses descriptions of the various parts or "components" but it fails to disclose how the nodes, workflow systems, etc., work together to accomplish real-time delivery from disparate content repositories.

The Applicants respectfully disagree. The Claims are directed to various embodiments described in the specification. The Applicants respectfully maintain that the issue is whether the subject matter of the **Claims** is enabled by the specification. In particular, Claims 1 and 24 recite how the nodes, content repositories and workflow system function together. The functionality of Claims 1 and 24 is enabled by the specification.

Claim 1 recites: A computer system to virtually organize content of a plurality of disparate content repositories, content organizing structures of the plurality of disparate content repositories, work items of a plurality of disparate workflow systems, and work organizing structures of the plurality of disparate workflow systems, comprising: a processing unit; and a memory comprising: a virtual repository comprising a plurality of nodes, a first node of the plurality of nodes linking to a work item of a first workflow system of the plurality of workflow systems, a second node of the plurality of nodes linking to a work item of a second workflow system of the plurality of workflow systems, a third node of the plurality of nodes linking to a work organizing structure of the first workflow system, a fourth node of the plurality of nodes linking to a work organizing structure of the second workflow system, a fifth node of the plurality of nodes linking to a content of a first content repository of said plurality of disparate content repositories, a sixth node of the plurality of nodes linking to a content of a second content repository of said plurality of disparate content repositories, a seventh node of the plurality of nodes linking to a content organizing structure of the first content repository, and an eighth node of the plurality of nodes linking to a content organizing structure of the second content repository, wherein the work organizing structure of the first workflow system is one of: a queue and a task list, wherein the work organizing structure of the second workflow system is one of: another queue and another task list, wherein the content organizing structure of the first content repository is a folder, wherein the content organizing structure of the second content repository is another folder, the virtual repository also comprising at least one virtual folder, wherein each said at least one virtual folder is also a node of said plurality of nodes, wherein said first node, said second node, said third node, said fourth node, said fifth node, said sixth node, said seventh node and said eighth node are organized via said at least one virtual folder; and an application programming interface (API), executable by said processing unit, to interface with a software application to provide access to the virtual repository, wherein said at least one virtual folder is accessed via said API; wherein said work item of said first workflow system is accessed via said first node, said work item of said second workflow system is

accessed via said second node, said work organizing structure of said first workflow system is accessed via said third node, said work organizing structure of said second workflow system is accessed via said fourth node, said first content repository is accessed via said fifth node, said content of said second content repository is accessed via said sixth node, said content organizing structure of said first content repository is accessed via said seventh node, and said content organizing structure of said second content repository is accessed via said eighth node.

Claim 24 recites: A computer system to create rich relationships between content, content organizing structures, work items and work organizing structures that exist in a plurality of content repositories, a plurality of workflow systems and at least one other external information source, comprising: a processing unit; and a memory comprising: a module comprising an application program interface (API), executable by the processing unit, to interface with a software application; a plurality of nodes, created using the first software, wherein the API provides an interface to the plurality of nodes, a first node of the plurality of nodes linking to a first work item of a first workflow system of the plurality of workflow systems, a second node of the plurality of nodes linking to a second work item of a second workflow system of the plurality of workflow systems, a third node of the plurality of nodes linking to a first work organizing structure of the first workflow system, a fourth node of the plurality of nodes linking to a second work organizing structure of the second workflow system, a fifth node of the plurality of nodes linking to a first content of a first content repository of said plurality of disparate content repositories, a sixth node of the plurality of nodes linking to a second content of a second content repository of said plurality of disparate content repositories, a seventh node of the plurality of nodes linking to a first content organizing structure of the first content repository, and an eighth node of the plurality of nodes linking to a second content organizing structure of the second content repository; a plurality of associations, created using the first software, describing relationships between the nodes, each association of said plurality of associations having at least two nodes of the plurality of nodes that are

members of said each association, said each association describing a relationship between the members of that association, said each association also being a node of the plurality of nodes, wherein said first, second, third, fourth, fifth, sixth, seventh, and eighth nodes are members of at least one association of the plurality of associations, wherein said first node linking to said first work item of said first workflow system and said fifth node linking to said first content of said first content repository are related via at least one particular association of said plurality of associations; and a plurality of locators to reference and de-reference entities external to the first module, said plurality of locators comprising a first locator to a first external entity, the first external entity being said first work item of said first workflow system, the first locator leverages workflow integration middleware to reference said first work item of said first workflow system; a second locator to a second external entity, the second external entity being said second work item of said second workflow system, the second locator leverages said workflow integration middleware to reference said second work item of said second workflow system; a third locator to a third external entity, the third external entity being the first work organizing structure of said first workflow system, the third locator leverages said workflow integration middleware to reference said first work organizing structure of said first workflow system, a fourth locator to a fourth external entity, the fourth external entity being said second work organizing structure of said second workflow system, the fourth locator leverages said workflow integration middleware to reference said second work organizing structure of said second workflow system; a fifth locator to a fifth external entity, the fifth external entity being said first content of said first content repository, the fifth locator leverages content integration middleware to reference said first content of said first content repository; a sixth locator to a sixth external entity, the sixth external entity being said second content of said second content repository, the sixth locator leverages said content integration middleware to reference said second content of said second content repository; a seventh locator to a seventh external entity, the seventh external entity being said first content organizing structure of said first content repository, the seventh locator leverages said content integration middleware to reference said first

content organizing structure of said first content repository; an eighth locator to an eighth external entity, the eighth external entity being said second content organizing structure of said second content repository, the eighth locator leverages said content integration middleware to reference said second content organizing structure of said second content repository; and an extensible locator interface to provide at least one additional locator to another external information source; said module providing access to said entities via said API, wherein said first work item of said first workflow system via said first node, said first locator and said workflow integration middleware; said second work item of said second workflow system is accessed via said second node, said second locator and said workflow integration middleware; said first work organizing structure of said first workflow system is accessed via said third node, said third locator and said workflow integration middleware; said second work organizing structure of said second workflow system is accessed via said fourth node, said fourth locator and said workflow integration middleware; said first content of said first content repository is accessed via said fifth node, said fifth locator and said content integration middleware; said second content of said second content repository is accessed via said sixth node, said sixth locator and said content integration middleware; said first content organizing structure of said first content repository is accessed via said seventh node, said seventh locator and said content integration middleware; said second content organizing structure of said second content repository is accessed via said eighth node, said eighth locator and said content integration middleware.

For the foregoing reasons, Applicants respectfully maintain that the subject matter of Claims 1 and 24 is enabled. Claims 2-13 depend from Claim 1 and are enabled for the same reasons as Claim 1. Claim 48 has similar recitations as Claim 1 and is enabled for the same reasons as Claim 1. Claims 25-27 and 29-32 depend from Claim 24 and are enabled for the same reasons as Claim 24. Claim 50 is similar to Claim 24 and is enabled for the same reasons as Claim 24.

Claim 39 does not recite nodes. Claim 39 is directed to a computer system to provide notification of at least one event handler. Claim 39 recites a processing unit and memory. The memory comprises a module application programming interface, a plurality of subscriptions, and an event path, and recites the functionality of the various elements of Claim 39. The elements and functionality of Claim 39 and dependent claims 40-45 is described in the specification and Figures 4 and 5. For the foregoing reasons, Applicants respectfully maintain that Claim 39 is enabled. Claims 40-45 depend from Claim 39 and are enabled for the same reasons as Claim 39.

The Rejection of Claims 1, 2, 3, 12, 13, 24, 39, 49 and 50 Under 35 USC § 112, 2nd Paragraph

Claims 1-13, 24-27, 29-32, 39-45, 48 and 50 are rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The Examiner asserts that Claims 2, 3, 12 and 13 all recite "and/or". In response to the prior rejection, Applicants amended Claims 2, 3, 12 and 13 to eliminate the term "and/or". Therefore, Applicants respectfully maintain that Claims 2, 3, 12 and 13 do not recite "and/or" and request that the rejection of Claims 2, 3, 12 and 13 be withdrawn.

Claims 1, 24, 39, 48 and 50 are rejected as being directed to nodes/links, workflow systems, disparate repositories, and that are all connected via middleware and have associations and locator without any functionality present. In response, Claim 1, 24, 39, 48 and 50 have been amended to recite additional functionality.

Claim 1 recites: A computer system to virtually organize content of a plurality of disparate content repositories, content organizing structures of the plurality of

disparate content repositories, work items of a plurality of disparate workflow systems, and work organizing structures of the plurality of disparate workflow systems, comprising: a processing unit; and a memory comprising: a virtual repository comprising a plurality of nodes, a first node of the plurality of nodes linking to a work item of a first workflow system of the plurality of workflow systems, a second node of the plurality of nodes linking to a work item of a second workflow system of the plurality of workflow systems, a third node of the plurality of nodes linking to a work organizing structure of the first workflow system, a fourth node of the plurality of nodes linking to a work organizing structure of the second workflow system, a fifth node of the plurality of nodes linking to a content of a first content repository of said plurality of disparate content repositories, a sixth node of the plurality of nodes linking to a content of a second content repository of said plurality of disparate content repositories, a seventh node of the plurality of nodes linking to a content organizing structure of the first content repository, and an eighth node of the plurality of nodes linking to a content organizing structure of the second content repository, wherein the work organizing structure of the first workflow system is one of: a queue and a task list, wherein the work organizing structure of the second workflow system is one of: another queue and another task list, wherein the content organizing structure of the first content repository is a folder, wherein the content organizing structure of the second content repository is another folder, the virtual repository also comprising at least one virtual folder, wherein each said at least one virtual folder is also a node of said plurality of nodes, wherein said first node, said second node, said third node, said fourth node, said fifth node, said sixth node, said seventh node and said eighth node are organized via said at least one virtual folder; and an application programming interface (API), executable by said processing unit, to interface with a software application to provide access to the virtual repository, wherein said at least one virtual folder is accessed via said API; wherein said work item of said first workflow system is accessed via said first node, said work item of said second workflow system is accessed via said second node, said work organizing structure of said first workflow system is accessed via said third node, said work organizing structure of said second

workflow system is accessed via said fourth node, said first content repository is accessed via said fifth node, said content of said second content repository is accessed via said sixth node, said content organizing structure of said first content repository is accessed via said seventh node, and said content organizing structure of said second content repository is accessed via said eighth node.

Claim 24 recites: A computer system to create rich relationships between content, content organizing structures, work items and work organizing structures that exist in a plurality of content repositories, a plurality of workflow systems and at least one other external information source, comprising: a processing unit; and a memory comprising: a module comprising an application program interface (API), executable by the processing unit, to interface with a software application; a plurality of nodes, created using the first software, wherein the API provides an interface to the plurality of nodes, a first node of the plurality of nodes linking to a first work item of a first workflow system of the plurality of workflow systems, a second node of the plurality of nodes linking to a second work item of a second workflow system of the plurality of workflow systems, a third node of the plurality of nodes linking to a first work organizing structure of the first workflow system, a fourth node of the plurality of nodes linking to a second work organizing structure of the second workflow system, a fifth node of the plurality of nodes linking to a first content of a first content repository of said plurality of disparate content repositories, a sixth node of the plurality of nodes linking to a second content of a second content repository of said plurality of disparate content repositories, a seventh node of the plurality of nodes linking to a first content organizing structure of the first content repository, and an eighth node of the plurality of nodes linking to a second content organizing structure of the second content repository; a plurality of associations, created using the first software, describing relationships between the nodes, each association of said plurality of associations having at least two nodes of the plurality of nodes that are members of said each association, said each association describing a relationship between the members of that association, said each association also being a node of the plurality of

nodes, wherein said first, second, third, fourth, fifth, sixth, seventh, and eighth nodes are members of at least one association of the plurality of associations, wherein said first node linking to said first work item of said first workflow system and said fifth node linking to said first content of said first content repository are related via at least one particular association of said plurality of associations; and a plurality of locators to reference and de-reference entities external to the first module, said plurality of locators comprising a first locator to a first external entity, the first external entity being said first work item of said first workflow system, the first locator leverages workflow integration middleware to reference said first work item of said first workflow system; a second locator to a second external entity, the second external entity being said second work item of said second workflow system, the second locator leverages said workflow integration middleware to reference said second work item of said second workflow system; a third locator to a third external entity, the third external entity being the first work organizing structure of said first workflow system, the third locator leverages said workflow integration middleware to reference said first work organizing structure of said first workflow system, a fourth locator to a fourth external entity, the fourth external entity being said second work organizing structure of said second workflow system, the fourth locator leverages said workflow integration middleware to reference said second work organizing structure of said second workflow system; a fifth locator to a fifth external entity, the fifth external entity being said first content of said first content repository, the fifth locator leverages content integration middleware to reference said first content of said first content repository; a sixth locator to a sixth external entity, the sixth external entity being said second content of said second content repository, the sixth locator leverages said content integration middleware to reference said second content of said second content repository; a seventh locator to a seventh external entity, the seventh external entity being said first content organizing structure of said first content repository, the seventh locator leverages said content integration middleware to reference said first content organizing structure of said first content repository; an eighth locator to an eighth external entity, the eighth external entity being said second content organizing structure

of said second content repository, the eighth locator leverages said content integration middleware to reference said second content organizing structure of said second content repository; and an extensible locator interface to provide at least one additional locator to another external information source; said module providing access to said entities via said API, wherein said first work item of said first workflow system via said first node, said first locator and said workflow integration middleware; said second work item of said second workflow system is accessed via said second node, said second locator and said workflow integration middleware; said first work organizing structure of said first workflow system is accessed via said third node, said third locator and said workflow integration middleware; said second work organizing structure of said second workflow system is accessed via said fourth node, said fourth locator and said workflow integration middleware; said first content of said first content repository is accessed via said fifth node, said fifth locator and said content integration middleware; said second content of said second content repository is accessed via said sixth node, said sixth locator and said content integration middleware; said first content organizing structure of said first content repository is accessed via said seventh node, said seventh locator and said content integration middleware; said second content organizing structure of said second content repository is accessed via said eighth node, said eighth locator and said content integration middleware.

Claim 39 recites: A computer system to provide notification of at least one event handler, comprising: a processing unit; and a memory comprising: a module application program interface (API), executable by the processing unit, to interface with a software application; a plurality of subscriptions to a plurality of subscribed-to-items, respectively, wherein the module API interfaces to the software application to create the plurality of subscriptions; the subscribed-to-items comprising a first content of a first content repository, a first content organizing structure of the first content repository, a first work item of a first workflow system, a first work organizing structure of the first workflow system, a second content of a second content repository, a second content

organizing structure of the second content repository, a second work item of a second workflow system, a second work organizing structure of the second workflow system; wherein the subscriptions are requests to track when at least one of an addition, change and delete occurs to any of the subscribed-to-items, respectively; and an event path defined per a logical group comprising a timer, a subscription group processor that creates events based on the subscriptions in response to the timer, a content monitor that detects change based on the events, an event filter that filters uninteresting change and interesting change based on the change detected by the content monitor, and an event handler that receives the interesting change, wherein the software application configures the event path via the module API.

For the foregoing reasons, Applicants respectfully maintain that Claims 1, 24 and 39 are not indefinite. Claims 48 and 50 have similar recitations as Claims 1 and 24 and are not indefinite for the same reasons as Claims 1 and 24, respectively. Therefore, Applicants respectfully request that the rejection of Claims 1, 24, 39, 48 and 50 under 35 USC § 112, second paragraph be withdrawn.

The Rejection of Claims 1-13 Under 35 USC § 101

Claims 1-13 were rejected under 35 USC § 101 as being directed to non-statutory subject matter. In response Claim 1 is amended to recite a "processing unit". Therefore Applicants respectfully maintain that Claim 1 is not directed to non-statutory subject matter. Claims 2-13 depend from Claim 1 and are statutory for the same reasons as Claim 1.

In addition, Claims 24 and 39 are amended to recite a "processing unit" to more particularly point out the invention.

The Rejection of Claims 1-9, 11 and 48 Under 35 USC § 102(e)

Claims 1-9, 11 and 48 are rejected under 35 USC § 102(e) as being anticipated by Hobbs (U.S. Pat. No. 6523022). In response Claims 1-9, 11 and 48 are amended to more particularly point out the invention.

Applicants respectfully maintain that Hobbs does not teach each and every recitation of Claim 1. Hobbs is directed to a method and apparatus for selectively augmenting retrieved information from a network resource. In col. 1 lines 22 et seq, Hobbs teaches that a multi-tier client/server model for record retrieval wherein optimum record retrieval from a database is achieved based on embedded expert judgments linked to words, phrases, sentences and paragraph of text; or numbers; or maps, charts, and tables; or still pictures and/or graphics; or moving pictures and/or graphics; or audio elements, contained in documents on a network resource, such as a web site and incorporating an intuitive graphical user interface (GUI) to correlate through a plurality of frames or inline frames, dynamic framesets, layers or adding to the display a plurality of fixed or floating pop-up windows, or any combination of the foregoing the retrieved records with records from one remote database or a large collection of remote databases maintained by one company, called a Data Warehouse, plus means to select various databases or Data Warehouses and a comprehensive selectable index of the linked embedded expert judgments.

Significantly Hobbs does not teach a virtual repository comprising at least one virtual folder organizing nodes. There is no teaching of a virtual folder in Hobbs.

Furthermore, Hobbs does not teach a workflow system or first and second workflow systems. Hobbs is directed to content and not workflow.

In addition, Hobbs does not teach a work item of a workflow system. Hobbs also does not teach a work organizing structure of a workflow system. Hobbs does

not teach a work organizing structure of a workflow system that is a queue. Hobbs does not teach a work organizing structure of a workflow system that is a task list.

For the foregoing reasons, Applicants respectfully maintain that Claim 1 is not anticipated by Hobbs. Claims 2-9 and 11 depend from Claim 1 and are not anticipated for the same reasons as Claim 1. Claim 48 has similar distinguishing recitations as Claim 1 and is patentable for the same reasons as Claim 1.

Claim 9

Claim 9 has additional distinguishing recitations not taught by Hobbs. Hobbs does not teach supplemental access control rules of a virtual repository in addition to the access control rules of a content repository and workflow system. Hobbs is teaching access control rules of a content repository. Hobbs does not teach the additional supplemental access control rules of a virtual repository.

For the foregoing additional reasons, Applicants respectfully maintain that Claim 9 is not anticipated by Hobbs and is patentable.

The Rejection of Claims 24-31 and 50 Under 35 USC § 102(e)

Claims 24-31 and 50 are rejected under 35 USC § 102(e) as being anticipated by Hobbs. In response Claims 24-31 and 50 are amended to more particularly point out the invention.

Hobbs does not teach a virtual repository comprising a plurality of nodes. Hobbs teaches a Data Warehouse that stores information.

Furthermore, Hobbs does not teach a workflow system or first and second workflow systems. Hobbs is directed to content and not workflow.

In addition, Hobbs does not teach a work item of a workflow system. Hobbs also does not teach a work organizing structure of a workflow system.

Hobbs does not teach a plurality of associations, created using the first software, describing relationships between the nodes, each association of said plurality of associations having at least two nodes of the plurality of nodes that are members of said each association, said each association describing a relationship between the members of that association, said each association also being a node of the plurality of nodes, wherein said first, second, third, fourth, fifth, sixth, seventh, and eighth nodes are members of at least one association of the plurality of associations, wherein said first node linking to said first work item of said first workflow system and said fifth node linking to said first content of said first content repository are related via at least one particular association of said plurality of associations. Even assuming that Hobbs teaches content in a directory associated by links, Hobbs does not teach associations with content, content organizing structures, work items and work organizing structure. Furthermore, Hobbs does not teach that said first node linking to said first work item of said first workflow system and said first content of said first content repository are related via at least one particular association of said plurality of associations. Hobbs does not teach an association between content in a content repository and a work item of a workflow system.

For the foregoing reasons, Claim 24 is not anticipated by Hobbs. Claims 25-31 depend from Claim 24 are not anticipated for the same reasons as Claim 24. Claim 50 has similar distinguishing recitations as Claim 24 and is patentable for the same reasons as Claim 24.

The Rejection of Claims 12-13 Under 35 USC § 103(a)

Claims 12-13 are rejected under 35 USC § 103(a) as being obvious over Hobbs in view of Michaelides (U.S. Pub. No. 2004/0181753). In response Claims 12-13 are amended to more particularly point out the invention.

Claims 12-13 depend from Claim 1. As discussed above, Hobbs does not teach all the recitations of Claim 1. Furthermore, Michaelides does not teach a virtual repository comprising at least one virtual folder organizing nodes. There is no teaching of a virtual folder in Michaelides. Furthermore, Michaelides does not teach a workflow system or first and second workflow systems. In addition, Michaelides does not teach a work item of a workflow system. Michaelides also does not teach a work organizing structure of a workflow system. Michaelides does not teach a work organizing structure of a workflow system that is a queue. Michaelides does not teach a work organizing structure of a workflow system that is a task list.

Therefore, Applicants respectfully maintain that neither Hobbs nor Michaelides, alone or in combination, teach the recitations of Claim 1, and therefore Claims 12-13. For the foregoing reasons, Applicants respectfully maintain that Claims 1, 12 and 13 are not obvious and are patentable.

The Rejection of Claim 10 Under 35 USC § 103(a)

Claim 10 is rejected under 35 USC § 103(a) as being obvious over Hobbs in view of Johnson (U.S. Pub. No. 2002/0152210). Applicants respectfully disagree.

Claim 10 depends from Claim 1. Applicants respectfully maintain that neither Hobbs nor Johnson, alone or in combination, teach all the recitations of Claim 1, and therefore Claim 10. As discussed above, Hobbs does not teach all the recitations of Claim 1. Furthermore, Johnson does not teach does not teach a virtual repository

comprising at least one virtual folder organizing nodes. There is no teaching of a virtual folder in Johnson. Furthermore, Johnson does not teach a workflow system or first and second workflow systems. In addition, Johnson does not teach a work item of a workflow system. Johnson also does not teach a work organizing structure of a workflow system. Johnson does not teach a work organizing structure of a workflow system that is a queue. Johnson does not teach a work organizing structure of a workflow system that is a task list.

For the foregoing reasons, Applicants respectfully maintain that Claims 1 and 10 are not obvious and are patentable.

The Rejection of Claim 32 Under 35 USC § 103(a)

Claim 32 is rejected under 35 USC § 103(a) as being obvious over Hobbs in view of Brunner (U.S. Pat. No. 5550971). In response Claim 32 is amended to more particularly point out the invention.

Claim 32 depends from Claim 24. As discussed above, Hobbs does not teach all the recitations of Claim 24. Although Brunner uses the term "ASSOCIATION type", Brunner does not teach each and every recitation of Claim 32 of: wherein the associations have 0 or more association types, wherein the association types have logical properties describing the type of the relationship, wherein said logical properties comprise at least one of: an allowed cardinality of the relationship, allowed members of the relationship, required members of the relationship, a transitivity of the relationship, a delete propagation across the relationship, and a save propagation across the relationship.

The Brunner et al patent is directed to a method and system for generating a user interface in a database management system. A semantic data model is used to describe a database in terms of data types stored in the database and functional types that describe relationships between the data types stored in the database.

The Brunner et al patent operates at the database level. In contrast, the claimed invention operates at a level that is higher than the database level. The claimed invention is directed to creating rich relationships between content, content organizing structure, work items and work organizing structures that exist in a plurality of content repositories, a plurality of workflow systems and at least one other external information source.

Therefore, Applicants respectfully maintain that neither Hobbs nor Brunner, alone or in combination, teach the recitations of Claim 24, and therefore Claim 32. For the foregoing reasons, Applicants respectfully maintain that Claims 24 and 32 are not obvious and are patentable.

The Rejection of Claims 39-44 Under 35 USC § 103(a)

Claims 39-44 are rejected under 35 USC § 103(a) as being obvious over Hobbs in view of Armstrong (U.S. Pat. No. 6279046). In response Claims 39-44 are amended to more particularly point out the invention.

Applicants respectfully maintain that neither Hobbs nor Armstrong teach, alone or in combination, all the recitations of Claim 39. As discussed above, Hobbs does not teach a virtual repository comprising a plurality of nodes. Hobbs teaches a Data Warehouse that stores information. Furthermore, Hobbs does not teach a workflow system or first and second workflow systems. Hobbs is directed to content and not workflow. In addition, Hobbs does not teach a work item of a workflow system. Hobbs also does not teach a work organizing structure of a workflow system.

In addition Armstrong does not teach a virtual repository comprising a plurality of nodes. Armstrong does not teach a workflow system or first and second

workflow systems. Armstrong does not teach a work item of a workflow system. Armstrong also does not teach a work organizing structure of a workflow system.

Furthermore, the Armstrong et al patent is directed to an event-driven communications interface to support communications between multiple logical partitions in a logically-partitioned computer. With logical partitioning, a single physical computer is permitted to operate essentially like multiple and independent "virtual" computers (referred to as logical partitions), with the various resources of the physical computer. Each logical partition executes a separate operating system. A shared resource, often referred to as a "hypervisor" or partition manager, manages the logical partitions and facilitates the allocation of resources to different logical partitions. Passage of events between logical partitions typically occurs completely through the internal hardware components of the computer, and usually with relatively little overhead, thereby providing performance that is superior to the use of external networks.

Therefore the Armstrong et al patent is directed to a different problem from the claimed invention, and one skilled in the art would not look to the Armstrong et al patent to provide notification of event handlers based on change to content and content organizing structures of content repositories, and to change to work items and work organizing structures of workflow systems.

In addition, the Armstrong et al patent does not disclose the subscriptions of the claimed invention. The Armstrong et al patent is directed to event-driven communication within a single physical computer system. The Armstrong et al patent teaches events between logical partitions in a single computer system. The Armstrong et al patent does not teach events based on content and content organizing structures of content repositories and work items and work organizing structures of workflow systems. The Armstrong et al patent does not teach events based on changes in content repositories and workflow systems.

Furthermore the Armstrong et al patent does not teach a filter that filters interesting and uninteresting changes in events based on changes in content repositories and workflow system.

The Armstrong et al patent does not teach: an event path defined per a logical group comprising a timer, a subscription group processor that creates events based on the subscriptions in response to the timer, a content monitor that detects change based on the events, an event filter that filters uninteresting change and interesting change, and an event handler that receives the interesting change.

For the foregoing reasons, Applicants respectfully maintain that Claim 39 is not obvious and is patentable. Claims 40-44 depend from Claim 39 and are patentable for the same reasons as Claim 39.

Claim 45 depends from Claim 39 and is patentable for the same reasons as Claim 39.

New Claims

Claims 52-56 depend from Claim 39 and are based on original claims 35-38, and are patentable for the same reasons as Claim 39.

Claim 57 is a method claim with similar distinguishing recitations as Claim 39 and is patentable for the same reasons as Claim 39.

Claim 58 depends from claim 24 and has the additional distinguishing recitations of wherein the associations have association types, wherein the association types have logical properties describing the type of the relationship, wherein said logical

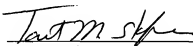
properties comprise an allowed cardinality of the relationship, allowed members of the relationship, required members of the relationship, a transitivity of the relationship, a delete propagation across the relationship, and a save propagation across the relationship.

Conclusion

Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

Respectfully submitted,

December 17, 2007



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